

## Structural Peculiarities of Social Mental Abilities of Future Teachers

Ardakh Rizabekovna Yermentayeva<sup>a</sup>, Kundyz Serikovna Kenzhebayeva<sup>b</sup>, Akerke Nurlanbekovna Umirbekova<sup>c</sup>, Zhanat Kanashovna Aubakirova<sup>d</sup>, and Akmara Bakytbekovna Iskakova<sup>d</sup>

<sup>a</sup> N.Gumilyov Eurasian National University, KAZAKHSTAN, <sup>b</sup> The Korkyt Ata Kyzylorda State University, KAZAKHSTAN, <sup>c</sup> Abai Kazakh National Pedagogical University, KAZAKHSTAN, <sup>d</sup> University Turan-Astana, KAZAKHSTAN,

### ABSTRACT

The problem of social intelligence of researchers has attracted attention in recent years. Social intelligence is one of the most important characteristics of teachers. The aim of this research was to study features of structure of social intelligence of future teachers. The respondents in this study were selected 360 students of pedagogical specialties from Kyzylorda State University. The following tools are used in the work: methods of investigation of social intellect by J.P. Guilford and M.O. Sullivan. Results of theoretical and experimental studies have revealed general and specific features of social intelligence of future teachers. The results of research indicated that normative-role values accepted in society are significant for respondents; the students are guided by these values in situations of interpersonal interactions. Dynamics of parameters of social intelligence of respondents was performed. Gender features of social intelligence of future teachers were established. Differences which were related with professional specialization were not found.

**KEYWORDS**  
Teacher, social intelligence, interpersonal interaction, specialization, dynamics

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### Introduction

There is a considerable amount of research of social structure of social intelligence for both children and adults. Mainly social intelligence was studied by foreign researchers. Social intelligence is considered by most of researchers as ability to understand adequately and estimate self-behavior and behavior of other people (Cattell, 1963). In Kazakhstan, social intelligence research is studied insufficiently. We study features of social intelligence of future teachers. The theme of social intelligence means significant pedagogical profession. Social

**CORRESPONDENCE** Ardakh Rizabekovna Ermentayeva  E-mail: kundiz\_27\_87@mail.ru

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intelligence is development by teacher's knowledge, skills and abilities to understand himself / herself, self-behavior, actions of other people and to build effective interaction and also to achieve a goal (Karl, A., 2005. Social Intelligence: The New Science of Success. Jossey-Bass, pp: 304). We define social intelligence of future teachers as cognitive component of their communicative competence. Theoretical analysis and using the research methods of O'Sullivan and Guilford (1977), 16-PF Cattell (1963) earlier on other selections allowed us to establish connection of social intelligence with components of communicative competence of future teachers (Yermentayeva et al., 2014). However, up to now in Kazakhstan dynamics, gender, regulatory-role, ethnic and national features of social intelligence weren't studied. In this regard, we study features of structure of social intelligence of future teachers of the ethnic Kazakh nation.

### Materials And Methods

**Research model:** Our research was conducted in 2013-2014 and based on the University by Korkyt Ata (Kyzylorda). About 360 students of the 1-4th courses of pedagogical specialties were as examinees (Table 1).

First of all, it should be noted that groups are uneven by quantity and gender of students. Such distribution of gender is characteristic for pedagogical specialties in our country.

The following tools are used in the work: methods of investigation of social intellect by O'Sullivan and Guilford (1977). Statistical software package SPSS 17.0 was used for calculation of data.

**Objective of the study:** This research is directed on studying of dynamics, gender, regulatory – role features in structure of social intelligence of future teachers of the ethnic Kazakhs.

**Literature review:** Psychological science has many definitions, approaches, models of social intelligence. So, we cannot reveal all the concepts of social intelligence in this study. In this regard, we describe only the scientific positions which are necessary to understand our work and which serve for purposes and objectives of the research, its hypotheses and methods.

The conceptions of social intelligence of Thorndike (1920), Eysenck and Barrett (1985) and Guilford (1967) are well-known in our country. Publications began appearing in the twentieth century with the work of Edward Thorndike on social intelligence in 1920. Thorndike (1920) defined the social intelligence as a part of general intelligence and paid great attention to educational processes as social perception. Social intelligence according to the original definition of Edward Thorndike is "the ability to understand and manage men and women, boys and girls, to act wisely in human relations". Many of these early studies focused on describing, defining and assessing socially competent behavior (Chapin, 1942; Moss and Hunt, 1927; Moss et al., 1927). Doll (1935) published the first instrument designed to measure socially intelligent behavior in young children. Possibly influenced by Thorndike and Doll, David Wechsler included two subscales ("Comprehension" and "Picture Arrangement") in his well-known test of cognitive intelligence that appear to have been designed to measure aspects of social intelligence. A year after the first publication of this test in

1939, Wechsler (1940) described the influence of non-intellective factors on intelligent behavior which was yet another reference to this construct. In the researches of D. Wechsler social intelligence was understood as an individual's suitability for the human being, that is, the ability to cope well with life's situations. Eysenck's opinion about the social intelligence was the result of development of the general intelligence under the influence of socio-cultural conditions, it is the ability of individual's adaptation to the requirements of society. Among the factors, influence of level of development of social intelligence, Eysenck and Barrett (1985) defined socio-economic status, its motivation, cultural factors, level of education and others. Cattell (1963) singled out potential and crystalline intelligence. Potential intelligence is the basis of thinking and serves as the basis for the formation of crystalline intelligence. Social intelligence was reviewed by Allport (1937) as special person's ability to judge people correctly, to predict their behaviour and to ensure adequate adaptation in interpersonal relations.

At the moment, the complex structural model of social intelligence was represented by Guilford (1967). Gradually more and more attention in the study of social intelligence was paid to the research based on the behavioral, non-verbally assess of social intelligence. Holistic theory of intelligence, according to Sternberg (1997) includes three aspects:

1. Component sub theory that is the explanation of the inner world of the individual, thinking mechanisms related to the processing of information (intelligence component)
2. Sub theory experience determines the efficiency of mastering a new situation, using the previous experience (experiential intelligence)
3. Sub theory context which describes and explains the manifestation of intelligence in social situation (situational intelligence)

Scholars began to shift their attention from describing and assessing social intelligence to understand the purpose of interpersonal behavior and the role it plays in effective adaptability (Zirkel and Cantor, 1990). This line of research helped define human effectiveness from the social perspective as well as strengthened one very studying of dynamic, gender, regulatory- role features socially intelligent behavior in young children. Ford and Tisak (1983) defined social intelligence as a group of mental abilities associated with the processing of social information for successful solving the problem. They proved that social intelligence is not identical to the general intelligence and develops in a social environment. One of the first who combined these two ways of viewing and diagnosis of social intelligence was Kosmitzki and John (1993), proposed the concept of social intelligence which includes seven items. These components were defined in two relatively independent groups: the "cognitive" and "behavioural". Additionally, this position helped social intelligence as the part of general intelligence. The early definitions of social intelligence influenced the way emotional intelligence was later conceptualized. Contemporary theorists like Mayer and Salovey (1997) originally viewed emotional intelligence as the part of social intelligence which suggests that both concepts are related and may in all likelihood, represent interrelated components of the same construct. In social intelligence, Daniel Goleman explores an emerging new science with

startling implications for our interpersonal world. Its most fundamental discovery: we are designed for sociability, constantly engaged in a 'neural ballet' that connects us brain-to-brain with those around us. Goleman explains the surprising accuracy of first impressions, the basis of charisma and emotional power and how we detect lies. He describes the 'dark side' of social intelligence, from narcissism to Machiavellianism and psychopathy. Myers (1995) defines social intelligence as the social thinking as the ability to evaluate themselves and others on the basis of social attitudes. Piaget (2001) considers the essence of intelligence in flexible and sustainable adaptation to physical and social reality. According to his concept, social intelligence combines and regulates cognitive processes associated with the reflection of social facilities. Karl (2005) defines social intelligence as the ability to get along well with others while winning their cooperation. SI is a combination of sensitivity to the needs and interests of others, sometimes called your "social radar", an attitude of generosity and consideration and a set of practical skills for interacting successfully with people in any setting. Social Intelligence provides a highly accessible and comprehensive model for describing, assessing and developing social intelligence at a personal level.

Theoretical analysis of the literature helped us to development. This is manifested in the hypothesis of the study: the structure of social intelligence of future teachers of Kazakh ethnicity is characterized by dynamic, gender and role-regulatory values in society.

## Results And Discussion

### **Data analysis:**

Data on the social intelligence test are presented as the average value, received in measured parameters by examinees; statistical analysis of scatter data was conducted (Table 2).

From the above-stated data, the research shows visually that the overall level of social intelligence of future teachers in the junior years was below the level of social intelligence of students in senior years; social intelligence of future teachers also differed by gender. Statistical data processing showed a significance of gender and age distinctions at the statistical levels  $p \leq 0.05$  and 0.01 for all subtests of methodology.

All indicators of social intelligence of future teachers are in the range of average and higher than average. However, during research, it was found that age changes of students were related to their social intelligence development. This is manifested in the fact that senior students have higher rates of social intelligence in comparison with the 1st year students. It was revealed for junior students: future teachers do not possess sufficient life experience; most of them have no clear idea about the possible forms of communication in the group; indicators of composite scores are averages. Senior students are more characterized by abilities to foresee consequences of human behavior ( $n^* = 3.681$ ,  $p < 0.01$ ). Absence of explicit clearly differs between students of the 1st and the 2nd courses also between the 3rd and the 4th courses allow us to conclude that structure of social intelligence is undergoing changes basically by the 3rd

year, further development of social intelligence is more gradual. The most expressed differences at students are observed on the 1st and the 3rd courses: between indicators of abilities to expect behavior consequences ( $n^* = 3.911$ ,  $p<0.05$ ).

We also revealed that female students have significantly higher level of social intelligence than future male teachers ( $n^* = 2.863$ ,  $p<0.01$ ). Both verbal and non-verbal components of social intelligence are important for female students; these components are based on two various channels for perception and information processing: unconscious (non-verbal) channel and rational (verbal) channel. Rational (verbal) channel of perception and information processing is major in solving problems of social and behavioral character for young men. Indicators of social intelligence indicate differences by quantity and closeness of communication and contacts for female and male students. This testifies to more mature structure of social intelligence of future female teachers in comparison with future male teachers. Most of future teachers have ability to verbal communication. We connect higher values of the subtest 3 with pedagogical orientation of students and ethnic features, norms, standards and attributes of communication of Kazakhs. Future teachers come to universities with partially formed abilities. Therefore, we assume that level of development of social intelligence in general and its separate abilities for future teachers is not only connected with ages and professional features of respondents, but also with features of the Kazakh society. Furthermore, skills and abilities foreseeing consequences of behavior and actions are of great importance and based on strategy and tactics of communication and are valuable in communication culture of Kazakhs. Pedagogical orientation and ethnic feature of Kazakh students help them quickly and correctly understand what people talk to each other in the context of a particular situation. Thus, we can say that future teachers on senior years and female students are more successful in communicative process; they understand people better and are able to predict their actions in various situations of interaction. Such positive trend in our opinion, can be explained by the increased frequency of direct interpersonal contact in student's years of pedagogical practice in senior courses; open and active relationships in the Kazakh culture. Nevertheless, our research shows insufficient level of social intelligence of future teachers.

Table 1. General characteristic of examinees

Characteristic	Men	Women	Total
Amount of future teachers	70	290	360
Average age, years $\pm$ SD	21.3 $\pm$ 2.71	20.5 $\pm$ 3.05	20.9 $\pm$ 2.43
Students of the 1st course	12	70	82
Students of the 2nd course	15	74	89
Students of the 3rd course	21	66	87
Students of the 4th course	22	60	82

Table 2. Parameters of social intelligence (social intelligence test)

Test social intelligence with raw scores(SD)					
	Students of the 1st course	Students of the 2nd course	Students of the 3rd course	Students of the 4th course	
Parameters	Men Women	Men Women	Men Women	Men Women	
Subtest 1	8.00(2.35) 8.52(1.99)	9.14(1075) 9.09(2.28)	8.41(2.17) 10.16(2.37)		9.75(1.21)
Subtest 2	9.17(1.94) 9.64(2.31)	9.89(2.55) 10.61(2.45)	9.63(2.04) 10.81(2.0)		10.28(1.97)
Subtest 3	8.93(3.03) 10.36(2.80)	9.51(2.95) 10.75(2.58)	9.55(2.62) 10.83(2.17)		9.93(2.14)
Subtest 4	8.78(2.81) 9.82(3.04)	9.62(2.39) 10.11(2.59)	9.50(1.58) 10.65(2.06)		9.61(3.11)
Composite score	34.88(5.01) 38.34(5.72)	38.16(7.45) 40.56(6.94)	37.09(4.36) 42.45(6.58)		39.57(6.18)
Criterion-Fisher n*		2.51** 3.27**	2.39**		3.54**
(F - criterion)					

SD: Standard Deviation; Significance level of differences by criterion n\*  
 Fischer: \*\*p<0.01

## Conclusion

In the structure of social intelligence of the future teachers are not found high levels of cognition of behavior other people, despite professional requirements for communication of pedagogues, gender-age features, social and cultural factors in the Kazakh society. Parameters of social intelligence of future teachers increased from average level in younger courses to higher than average level in senior courses. Thus, all indicators of social intelligence of future teachers have positive dynamics from a course to a course. Dynamics of social intelligence are caused by individual-personal, social-cultural factors. Future teachers of younger courses are least able to expect consequences of behavior of people; they cannot anticipate further acts of people around, previously having analyzed a standard real situation of communication. Junior students have insufficiently understood relationships between behavior and consequences which can lead. Senior male and female students are more capable to estimate correctly states, feelings and intentions of others on nonverbal manifestations; they are sensitive to emotional conditions of others in the process of business contacts; they are open and friendly in communication; they have emotional stability; they are honest, reliable and conscientious. Also, they are susceptible to criticism and have high self-esteem. Future male and female teachers on senior courses attach great importance to verbal communication. Senior students know how to find the correct tone with different interlocutors in various situations; they have a repertoire of role behavior and are capable to show the role of plasticity. Future female teachers tend to increase sensitivity for character and nuances of human relationships that allow them to correctly understand and evaluate speech expression. Still future teachers-women attach great importance to analysis non-verbal expressions; they are sensitive to nonverbal expression that enhances their abilities to understand others. Thus, the experimental research shows that targeted and special development of social intelligence of future teachers at the universities is one of the actual directions for further study.

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